# EMERGENCY SERVICES DIVISION

# BROOKHAVEN NATIONAL LABORATORY

Procedure No: FR-RES-6.0.2

Revision No: 4

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## **Title: Response to Light Vehicle Fires**

### 1.0 **PURPOSE**

- 1.1 The purpose of this procedure is to assure the efficient extinguishment of fires involving automobiles and other light duty vehicles while maintaining the highest level of safety for all responding personnel.
- 1.2 This procedure shall apply to all automobiles, pick-up trucks and light duty vans that are reported to be on fire. For the purposes of this procedure the absence of smoke or flame shall not constitute sufficient evidence that a fire condition does not exist.

### 2.0 **RESPONSIBILITY**

2.1 The Duty Captain has full responsibility for assuring compliance with this procedure. Under no circumstances shall any aspect of safety be sacrificed in order to increase the speed of the operations.

### 3.0 **DEFINITIONS**

None.

#### 4.0 **PREREQUISITES**

None.

### 5.0 **PRECAUTIONS**

None.

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Filing Code: FR20SR.01		REVIEW CYCLE: 3 years

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#### 6.0 **PROCEDURE**

#### 6.1 Apparatus Approach and Positioning

Apparatus responding to a vehicle fire shall be positioned (as far as conditions permit):

- 6.1.1 Uphill from the involved vehicle to prevent burning fuel from running toward the apparatus.
- 6.1.2 Upwind from the involved vehicle to minimize smoke exposure to the apparatus and the apparatus operator.
- 6.1.3 At least 100 feet from the involved vehicle to provide a safety zone around the involved vehicle.
- 6.1.4 Between working firefighters and approaching traffic to protect personnel from traffic.

### 6.2 Safety Perimeter

A safety perimeter shall be established around the involved vehicle. The area of the safety perimeter shall be all areas within a 100 ft. radius of the vehicle. All personnel operating within the safety perimeter shall be in full protective clothing and self contained breathing apparatus.

#### 6.3 **Potential Hazards**

All personnel shall operate while being aware of the following potential hazards:

- 6.3.1 Shock absorbing bumpers may explode and separate from the vehicle.
- 6.3.2 Multiple or auxiliary fuel tanks.
- 6.3.3 Sealed drive shafts may explode when heated.
- 6.3.4 Multiple batteries (especially on diesel vehicles).
- 6.3.5 High pressure hoses connected to air conditioning equipment may separate or burst releasing oil and pressurized gas.
- 6.3.6 Hood springs may be weakened by exposure to fire (hood should be propped open with an appropriate tool).
- 6.3.7 All fire fighters on hose lines or working downwind must wear S.C.B.A.
- 6.3.8 Possible alternate fuels, such as liquefied nature gas.

#### 6.4 Fire Attack

The initial attack shall be made with a line capable of flowing at least 100 GPM. As soon as possible, the initial line shall be backed up with a second line also capable of flowing at least 100 GPM.

- 6.4.1 If possible, the vehicle should be approached at a 45 degree angle so firefighters are not in a direct line with the front or rear bumpers. When approaching a well involved vehicle a wide spray pattern will provide maximum protection for personnel.
- 6.4.2 **Block Wheels** As soon as possible, the wheels of the involved vehicle should be blocked to prevent movement during fire suppression operations.

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6.4.3 Protect Fuel Tank – Any fire exposing the fuel tank(s) should be controlled first. Exposed fuel tanks should be cooled to minimize internal pressure and the possibility of rupture. After all fire around the fuel tanks has been controlled, move to the passenger and engine compartments.

- 6.4.4 Engine and Passenger Compartments – Use extreme caution when opening the passenger and engine compartments. Fire may flash outward when the compartment is ventilated. Always have charged hose lines available before the compartment is opened and all personnel should stand to the side when a compartment is opened.
- 6.4.5 **Electrical System** – The electrical system should be secured as soon as possible by disconnecting or cutting the battery cables. Always disconnect the negative or ground cable first.

#### 7.0 **IMPLEMENTATION AND TRAINING**

None.

#### 8.0 **REFERENCES**

None.

#### 9.0 ATTACHMENTS

9.1 Typical Vehicle Fire Hazards